

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

10/542893

(43) International Publication Date
5 August 2004 (05.08.2004)

PCT

(10) International Publication Number
WO 2004/066624 A1(51) International Patent Classification⁷: H04N 7/01, 5/14
(21) International Application Number:
PCT/IB2003/006182(22) International Filing Date:
16 December 2003 (16.12.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
03100134.0 23 January 2003 (23.01.2003) EP(71) Applicant (for all designated States except US): KONIN-
KLIJKE PHILIPS ELECTRONICS N.V. [NL/NL];
Groenewoudseweg 1, NL-5621 BA Eindhoven (NL).

(72) Inventors; and

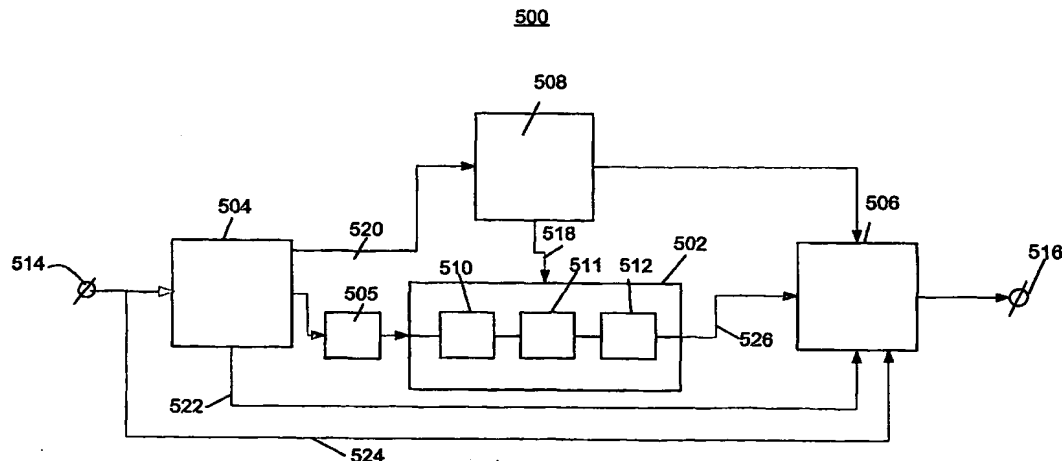
(75) Inventors/Applicants (for US only): WITTEBROOD,
Rimmert, B. [NL/NL]; c/o Prof. Holstlaan 6, NL-5656
AA Eindhoven (NL). DE HAAN, Gerard [NL/NL]; c/o
Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). LOD-
DER, Rogier [NL/NL]; c/o Prof. Holstlaan 6, NL-5656
AA Eindhoven (NL).(74) Agent: GROENENDAAL, Antonius, W., M.; Philips
Intellectual Property & Standards, Prof. Holstlaan 6,
NL-5656 AA Eindhoven (NL).(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR,
CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR,
KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN,
MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU,
SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA,
UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.(84) Designated States (regional): ARIPO patent (BW, GH,
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,
SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— as to applicant's entitlement to apply for and be granted
a patent (Rule 4.17(ii)) for the following designations AE,
AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ,
CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE,
EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN,
IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV,
MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,
TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM,
ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD,

[Continued on next page]

(54) Title: BACKGROUND MOTION VECTOR DETECTION



(57) Abstract: A selector (502) for selecting a background motion vector for a pixel in an occlusion region of an image, from a set of motion vectors being computed for the image, comprises: computing means (510) for computing a model-based motion vector for the pixel on basis of a motion model being determined on basis of a part of (402-436) a motion vector field (400) of the image; comparing means (511) for comparing the model-based motion vector with each of the motion vectors of the set of motion vectors; and selecting means (512) for selecting a particular motion vector of the set of motion vectors on basis of the comparing and for assigning the particular motion vector as the background motion vector.